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Market Survey Questionnaire

for

Bridge - Light Assault Gap Crossing Capability: Type II

GENERAL INFORMATION: The U.S. Government appreciates the time and effort taken to respond to this survey. The U.S. Government acknowledges its obligations under 18 U.S.C. §1905 to protect information qualifying as "confidential" under this statute. [To avoid possible confusion with the meaning of the term "confidential" in the context of Classified Information," we will use the term "PROPRIETARY."] Pursuant to this statute, the U.S. Government is willing to accept any trade secret or PROPRIETARY restrictions placed on qualifying data forwarded in response to the survey questions and to protect it from unauthorized disclosure subject to the following:

1. Clearly and conspicuously mark qualifying data with the restrictive legend (all caps) "PROPRIETARY" with any explanatory text, so that the U.S. Government is clearly notified of what data needs to be appropriately protected.

2. In marking such data, please take care to mark only those portions of the data or materials that are truly confidential (over breadth in marking inappropriate data as "PROPRIETARY" may diminish or eliminate the usefulness of your response - see item 6 below). Use circling, underscoring, highlighting or any other appropriate means to indicate those portions of a single page which are to be protected.

3. The U.S. Government is not obligated to protect unmarked data. Additionally, marked data that is already in the public domain or in the possession of the U.S. Government or third parties, or is afterward placed into the public domain by the owner or another party through no fault of the U.S. Government will not be protected once in the public domain. Data already in the possession of the U.S. Government will be protected in accordance with the U.S. Government's rights in the data.

4. Confidential data transmitted electronically, whether by physical media or not, whether by the respondent or by the U.S. Government, shall contain the "PROPRIETARY" legend, with any explanatory text, on both the cover of the transmittal e-mail and at the beginning of the file itself. Where appropriate for only portions of an electronic file, use the restrictive legends 'PROPRIETARY PORTION BEGINS:" and "PROPRIETARY PORTION ENDS."

5. In any reproductions of technical data or any portions thereof subject to asserted restrictions, the U.S. Government shall also reproduce the asserted restriction legend and any explanatory text.

6. The U.S. Government sometimes uses support contractors in evaluating responses. Consequently, responses that contain confidential information may receive only limited or no consideration since the Respondent's marking of data as "PROPRIETARY" will preclude disclosure of same outside the U.S. Government and therefore will preclude disclosure to these support contractors assisting the evaluation effort. The U.S. Government will use its best efforts to evaluate those responses that contain confidential information without using support contractors consistent with the resources available.

DESCRIPTION OF INTENT:

THIS IS A MARKET SURVEY REQUESTING INFORMATION IN SUPPORT OF THE FOLLOWING PERFORMANCE REQUIREMENT. No contract will be awarded from this announcement. This is not a Request for Proposal (RFP) or an announcement of a forthcoming solicitation. Also, it is not a request seeking contractors interested in being placed on a solicitation mailing list. Response to this questionnaire is voluntary and no reimbursement will be made for any costs associated with providing information in response to this market survey and any follow-on information requests. Data submitted in response to this market survey will not be returned. No solicitation document exists at this time, and calls requesting a solicitation will not be answered.

PERFORMANCE REQUIREMENT:

The purpose of this questionnaire is to obtain information on commercial industry capability to satisfy US Army requirements for a Light Assault Gap Crossing Capability (LAGCC) bridge. The requirement will be achieved in a single step versus an evolutionary series of steps.

1. The Type II LAGCC system shall fully support execution of joint critical operational activities (Threshold {T}), and all critical operational activities (Objective {O}), identified in the applicable joint and system integrated architectures. The system must satisfy the technical requirements for transition to Net-Centric (T), or already Net-Centric (O), military operations to include:

    a. DOD Information Technology and Profile Registry (DISR) mandated Global Information Grid (GIG) Information Technology (IT) standards and profiles identified in the TV-1;

    b. DISR mandated GIG Key Interface Profiles (KIPs) identified in the KIP declaration table;

    c. Net Centric Operations Warfare (NCOW) Resource Management (RM) Enterprise Services;

d. Information assurance requirements including availability, integrity, authentication, confidentiality, and no repudiation, issuance of an Interim Approval to Operate (IATO) (T), and Approval to Operate (ATO) (O), by the Designated Approval Authority (DAA); and,

e. Operationally effective information exchanges; and mission critical performance and information assurance attributes, data correctness, data availability, and consistent data processing specified in the applicable joint and system integrated architecture views.

2. Military Load Class (MLC) for the Type II Bridge shall be MLC 40/MLC 50 caution (T) and MLC 70/MLC 85 caution (O).

3. The Bridge Launching Kit (BLK) for the Type II bridge shall be a platform independent kit that can be mounted on the following vehicles: HUMMV, BFV, M113 (T) and have a desired objective for the following vehicles: FMTV, Stryker, HEMTT, MTVR, ASV, FCS, JLTV (O). Providing a universal launch kit that does not require modification to the vehicle is objective (O).

4. The BLK for the Type II LAGCC shall be capable of attaching to the host vehicle within 30 minutes with a vehicle crew sized element and organic lift equipment.

5. The Force Protection shall not be degraded for the host vehicle of the Type II LAGCC during any time the bridge system is on the vehicle. An unarmored vehicle carrying a high probability target is an unacceptable risk.

6. The Type II LAGCC shall have no mission failure due to a single point failure from 20mm weapons fire. These bridges will be high probability targets and as such, will likely receive high volumes of fire. Robust architecture is a must for these bridges to survive long enough to complete the mission under fire.

7. The Type II LAGCC shall be able to cross gaps of at least 8m (T), 18m (O).

8. Type II LAGCC shall provide a single lane of 4.0m (13’2”) (T), 4.5m (14’9”) (O). All of these bridges are designed for a single lane of traffic at one time.

9. The Type II LAGCC shall also be transportable by highway, ocean, rail, and air assets. Movement to the theater shall be accomplished primarily by means of airlift utilizing a C-130 transporter aircraft. The Type II LAGCC shall also be transportable by a CH-47 in the stored or employed configuration. The CH-47 requirement is based on the Infantry Brigade Combat Team’s (IBCT) ability to move rapidly about the battlefield as C-130 transport can be restrictive. Once in the theater of operation, the primary mode of

transportation will be on a wheeled platform, trailer mounted or mounted on top of an IBCT host vehicle.

10. The Type II LAGCC shall be compliant, at minimum, with the North Atlantic Treaty Organization (NATO) STANAG 2010/2021 and The Tri-lateral Codes for Military Bridging and Gap Crossing Equipment (TDTC).
11. Type II LAGCC shall not degrade the mobility of the host vehicle by more than 25% (T), 10% (O). Bridge systems must be able to keep pace with the maneuver element to maintain momentum.

12. The Type II LAGCC shall be capable of operating in all types of weather (rain, snow, salt spray, fog, ice, dust, sand, turbulence and high humidity), hot and basic climatic zones (-25°F to 125°F), and wind speeds up to 50 knots without special kits while maintaining full mission capability (T). Shall have cold weather kits allowing operation down to -50°F (O).

13. The Type II LAGCC shall be capable of fording at a normal depth of 48 inches without an affixed deep water fording kit. All external optics and electronic components shall be watertight / proof to preclude damage during shallow water fording operations (T).

14. Type II LAGCC Launch/Retrieve Requirements:

    Threshold (T):
    The operators of the host vehicle (not to exceed a crew of 2 soldiers), shall launch/retrieve the bridge in 10 minutes or less during daylight hours, 15 minutes or less during all conditions of visibility and 15 minutes while wearing Individual Protective Equipment (IPE). The LAGCC must be launchable/retrievable from both ends of the bridge.

    Objective (O):
    The operators of the host vehicle (not to exceed a crew of 2 soldiers) shall launch/retrieve the bridge in 5 minutes or less during daylight hours, 10 minutes or less during all conditions of visibility and 10 minutes while wearing IPE.

15. The Type II LAGCC shall have a means of determining remaining service life and safety/structural deficiencies, which does not require an external power source. The conditions and use of the bridge can vary greatly and it is essential to have a method for determining safety and service life of the bridge.

16. The Type II LAGCC shall have an average transport reconfiguration time of 2 hours or less, using equipment operators and onboard tools (T), or loaded and removed in operable configuration and immediately available for towing/operation by its designated prime mover (O) after C-130 transport.

17. The Type II LAGCC shall be integrated onto one trailer (T) or one truck (O). This trailer or truck can be existing or newly developed specifically for use with the LAGCC Type II bridge. The reduction of logistical requirements while improving tactical capabilities is an overarching objective of any and all new equipment.

18. The Type II LAGCC launch/retrieval mechanisms shall have a power source that utilizes standard military fuels (JP8) and standard lubricants (if required), or be capable of utilizing the power source (i.e. electrical, air, hydraulic) of the host vehicle (T), and slave receptacle of any military vehicle for power (O).

19. The Type II LAGCC launcher/retriever shall provide a back-up capability to simply be launched and retrieved (T), within 30 minutes (O). The Type II LAGCC will be the sole tactical gap crossing capability within the IBCT.

20. The power source for the Type II LAGCC must possess a NATO slave receptacle. The NATO slave receptacle is standard auxiliary equipment on military equipment and allows interoperability with any vehicle for emergency starts.

21. The Type II LAGCC, when mounted onto or towed by the host vehicle, shall be capable of sustained hard surface speeds of 40 mph (T), 50 mph (O). One of the core capabilities of the proposed IBCT vehicle platform is to move rapidly about the battlefield maintaining a vehicle speed of 40 mph on hard surface roads. The Type II LAGCC must be capable of rapid deployment to critical areas immediately upon notification, and have the ability to rapidly relocate in support of and maintain pace with the IBCT.

22. The Type II LAGCC shall have a roadway width which provides adequate traction when wet or dry for all vehicles organic to the IBCT, (refer to MLC threshold and objective as previously stated), traveling at a normal crossing speed of up to a maximum 15 miles per hour (T), 25 MPH (O).

23. The Type II LAGCC shall be equipped with lifting and tie down provisions for transportation in accordance with (IAW) Military Standard (MIL-STD) 209. Military standard lifting and tie down provisions are necessary for safe and efficient deployment in all modes of transportation.

24. The Type II bridge structural components shall withstand 17,600 MLC 30 vehicle crossings (T), 20,000 MLC 50 crossings (O), without experiencing a durability failure. The launch/retrieve mechanism and bridge structural components shall withstand 800 launches and retrieve cycles (T), 1,000 launches and retrieve cycles (O), without experiencing a durability failure. The Type II LAGCC durability requirements are based upon a 10-year life, which was comprised of 8 years of peacetime and two 180 day wartime periods. It is estimated that a small number of caution crossings will be

conducted during the 180-day wartime periods amounting to approximately 150 vehicle crossings at the allowable cautionary MLC.

25. The Type II LAGCC shall have a manual bridge travel lock to lock the bridge into the stowed position while traveling (T). The Type II LAGCC shall have an automated bridge travel lock to lock the bridge into the stowed position while traveling and must alert the operator and commander that the bridge travel lock is in position (O). This requirement is necessary in order to ensure safe operation of the vehicle in travel mode and to prevent damage to the bridge or system. The automated bridge travel lock would ensure the operators are not exposed to enemy fire while emplacing or recovering the bridge.

26. The Type II LAGCC shall be able to perform its mission while in an electromagnetic environment consistent with requirements set for ground based systems and other vehicle in the Joint Force. This includes voice, data, and camera video.

27. Radio frequency dependent components of the Type II LAGCC must not produce electromagnetic emissions that interfere with or degrade the performance of existing platforms, dismounted personnel, instrumentation, weapons, sensors, or communications subsystems operating within its range. Radio frequency dependent components of the proposed system must comply with applicable national and international spectrum management statutes, policies and regulations, to include obtaining spectrum supportability in all host nations where deployment of the system or equipment is planned. This includes joint spectrum certification, and host nation coordination.

INSTRUCTIONS FOR COMPLETING THE QUESTIONNAIRE:

1. Number each response with the appropriate question number.

2. You do not have to repeat the question in your response.

3. If you cannot answer the question, please indicate “No Response.”

4. If a response will satisfy another question, state: “See response to question XX.”

5. Include relevant sales media and product manuals. If providing an ACROBAT formatted manual, annotate the manual to indicate which material is applicable to the questions. If preferred, include Internet Web links to locations where animations/videos may be viewed.

6. If your sales media and/or manuals contain a restricted distribution statement, issue a release statement indicating that the restricted material may be distributed to Army personnel involved with this Market Survey.

7. Spell out any acronyms in their first instance.

8. Clearly mark any confidential information. If applicable, the front page of your response package should state" "Confidential Information Contained." Provide a release statement indicating that the confidential information may be distributed to Army personnel involved with this Market Survey.

REQUEST FOR INFORMATION (RFI) – QUESTIONNAIRE

A. GENERAL

1. Manufacturer
    a. Name
    b. Mailing Address
    c. Website
    d. CAGE Code (if any)

2. Personnel Responding to Questionnaire
    a. Name
    b. Title
    c. Company Responsibility/Position
    d. Telephone/Fax Numbers
    e. E-Mail Address

3. Bridge Description
    a. Type II model number

4. Physical Characteristics
    a. Maximum length
    b. Maximum width
    c. Tread way width
    d. Maximum height
    e. Overall weight

B. PRODUCTION CONSIDERATION

1. How long has your system been in production?

2. When was the last time your system underwent a product upgrade? Is there a product upgrade planned in the next five years? Provide explanation.

3. Who has purchased your system? Provide explanation.

4. What is the production lead-time after receipt of an order (days)?

5. What is the approximate cost of your system?

C. PERFORMANCE CONSIDERATIONS

1. Describe the Net-Readiness of the bridge system. Can the bridge system support Net-Centric military operations which enable an exchange of secure data via the network?

2. Does your system meet the U.S. Army's requirement of being operable by 5^{th} and 95^{th} percentile female and male soldiers?

3. What are the maximum longitudinal and cross slopes of the near bank that your system is capable of being operated? Ref. 4.2.5 Trilateral Design and Test Code for Military Bridging and Gap-Crossing Equipment.

4. What are the minimum and maximum height differences between the near and far banks across which the bridge can be launched/retrieved?

5. What is the longest bridge that has ever been constructed using your system? Provide explanation.

6. What is the maximum transverse slope of the deck while the bridge is being crossed by the defined MLC vehicles?

7. What preparation is required for the near and the far banks of the gap? Comment on the ability of the Soldiers to perform the bank preparation.

8. How many operators does your system require?

9. How much time is required to launch/retrieve your system during: a) daylight hours, b) all conditions of visibility, c) and while wearing Individual Protective Equipment (IPE)?

10. What is the minimum and maximum lane width for vehicles to cross?

11. Will your bridge system degrade the force protection of the host vehicle? Provide explanation.

12. Does your system have a launcher that attaches to a vehicle or is it trailer towed? Can your system be launched/retrieved without the Soldiers leaving the protection of the vehicle?

D. TRANSPORTABILITY

1. Can your system be loaded into a C-130 transporter aircraft? CH-47? If so, explain.

2. Is your system equipped with lifting and tie down provisions for transportation in accordance with MIL-STD-209? Provide explanation.

3. When mounted on a vehicle, is your system waterproof in the event of the host vehicle fording at a normal depth of 48 inches? Are all external electronic components and launch/retrieve mechanisms watertight/proof to prevent damage during shallow water fording operations? Provide explanation.

4. Does your system have the capability to be transported by commercial rail cars? Provide explanation.

5. Explain how the bridge is locked and stowed while traveling between bridge launch sites? Is this a manual or automatic method? Provide explanation.

6. Is the bridge system capable of roll-on/roll-off with Commercial Ocean shipping?

7. When preparing for transport (i.e. component removal), please describe components removed, and requirements of manpower, time, tools, and equipment.

8. Will your bridge system degrade the range or mobility of the host vehicle by more than 25%? Provide explanation.

9. What is the maximum speed that a host vehicle can travel when your system is mounted onto or towed by a host vehicle?

E. ENVIRONMENTAL

1. Is your system able to perform its mission while in an electromagnetic environment (MIL-STD-1310)? Provide explanation.

2. Does your system perform its mission in an Electronic Attack (EA) environment described in MIL-STD-464? Provide explanation.

3. Can your system survive a High-altitude Electromagnetic Pulse (HEMP)? Provide explanation.

4. Does your system provide Chemical, Biological, Radiological, and Nuclear (CBRN) protection? Provide explanation.

5. What is the temperature and wind speed range that your system is capable of operating with and without cold weather kits?

F. SERVICE

1. Do you have a tracking procedure for the type and number of crossings by different vehicles? Note that the bridge may be crossed by vehicles possessing a MLC lesser than those specified earlier in this document.

2. What are the criteria and/or indicators used with your system to determine when a component needs to be refurbished or discarded? Provide explanation.

3. What maintenance is required in both the field and the depot? Are special tools required? Provide explanation.

4. How many approximate launch/retrieve cycles can your system perform without experiencing a durability failure? Provide explanation.

5. How many approximate MLC 30 vehicle crossings can your system perform without experiencing a durability failure? MLC 50? Provide explanation.

6. Define the Preventive Maintenance Checks and Services (PMCS) and schedule for accomplishing them. Do any of these tasks require removal of components?

7. What commercial warranties are provided with the unit? Do they include both parts and labor and cost of your representative's travel to the unit's location? Provide explanation.

G. SAFETY

1. Are there any unique recommended precautionary procedures to be used in operating or maintaining this equipment? Provide explanation.

2. Does your system have a roadway that provides adequate traction when wet or dry for vehicles to cross? What is the maximum and minimum speed for normal crossings? Provide explanation.

3. For vehicles crossing the bridge on a new moon night, does your system utilize any crossing aids and/or guidance devices to prevent the vehicles from colliding?

4. Sometimes there can be debris tracked onto the bridge as soldiers cross such as mud or ice which can degrade the grip of the treadway. Does your system have a means of minimizing (mud, sand, snow, ice, etc…) build up?

5. To prevent walking/movement of the bridge towards the gap as a result of the crossing traffic, does your system utilize anchorages to prevent the walking/movement? If so, provide a description.

6. Does your system provide a back-up capability that will allow it to be launched and retrieved in the event of a failure of its primary power source? If so, how many minutes will it take to be launched and retrieved? Provide explanation.

7. Are any operators of the system exposed to enemy fire during the launch/retrieve cycle? If so, how many?

H. QUALITY

1. Does your system have a means of determining remaining service life and safety/structural deficiencies that does not require an external power source? Provide explanation.

2. Does your plant and system meet all ISO certifications and standards? Provide explanation.

3. How many units have been produced in the current configuration?

I. SURVIVABILITY

1. Is your system hardened against weapon fire? If so, explain.

J. LOGISTICS

1. What experience do you have providing logistics support, either directly or through subcontractor opportunities? Can you provide samples of that effort?

2. Have you provided logistics support to any Government agencies? Please explain what these efforts entailed and provide copies of the Contract.

3. If you were awarded a contract for the LAGCC, would you perform the logistics effort in-house, or would you subcontract logistics? If you were subcontracting the logistics effort, list potential subcontractors you might use for this effort.

4. Please submit recommendations/comments regarding what you would consider the "appropriate" logistics for the LAGCC.

K. OTHER

1. Is your system compliant with North Atlantic Treaty Organization (NATO) and Tri-lateral codes? Provide explanation.

Responses to this Market Survey Questionnaire should be sent via Email to Eric Murphy – eric.murphy5@us.army.mil and Lori Finchem – lori.finchem@us.army.mil. You are requested to put "LAGCC TYPE II MARKET SURVEY RESPONSE" in the subject line of the email. You may respond in total or to any part of this questionnaire. Any requests for clarification on this Survey shall also be addressed to Eric Murphy and Lori Finchem, and will be published with the appropriate answers at the same web location as this Questionnaire.

Any product literature that cannot be emailed may be sent to:

U.S. Army TACOM Life Cycle Management Command
AMSCC-TAC-ADCD
ATTN: Eric Murphy (M/S # 326)
6501 E. Eleven Mile Rd.
Warren, MI 48397 – 5000

Replies to this questionnaire must be received by _____. Please mark your information "Confidential" as you feel appropriate. Your input is voluntary and no compensation can be made for your participation in this survey. We appreciate your cooperation in answering these questions and thank you in advance for your participation.

BE ADVISED that updates to the LAGCC or non-confidential questions from interested parties and responses by the U.S. Government will be posted to as addenda to the questionnaire.